

Increasing Diversity in Environmental Science and Engineering: The ORD Research Apprenticeship Program for High School Students

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The *Research Apprenticeship Program for High School Students* began in 1990 as a collaborative effort between EPA's Office of Research and Development in Research Triangle Park, NC, and Shaw University, a Historically Black College/University (HBCU) in Raleigh, NC. The program addresses the under-representation of minorities in the fields of environmental science and engineering and is designed to encourage students to pursue advanced degrees in these disciplines. The four-year program for selected Wake County, NC, high school students has two sessions: the academic year and the summer program. During the academic year, students attend environmental science classes, workshops, and interactive presentations by EPA scientists three Saturdays each month. During the summer, rising 9th-, 10th-, and 11th-grade students attend six weeks of classes, workshops, and field trips coordinated by Shaw University. The rising seniors apprentice under EPA mentors at EPA in Research Triangle Park during the summer. This intensive experience immerses students in scientific research and culminates in a research forum during which each student presents their work to an audience that includes mentors, students, parents, and EPA scientists. As of June 2003, 74 high school students have participated in the program (currently 34). Nine Program alumni have been accepted into the prestigious North Carolina School of Science and Mathematics. At least four students have co-authored peer-reviewed journal articles based on research conducted while working at the EPA, and many students have been hired by EPA in subsequent summers during college. The overall high school grade point average of participants is 3.57 on a 4.0 scale. Most significantly, 100% of those who completed the program entered college, and 90% majored in either science, math, or engineering with the support of over half a million dollars in scholarships and grants. The ORD Center for Environmental Education wants to share information about this successful program with other parts of EPA and the public to encourage its replication in other locations.